

POWER CONTROL CIRCUIT FOR LASER DIODE HAVING
WAVELENGTH COMPENSATION

ABSTRACT OF THE DISCLOSURE

A control circuit for a laser diode includes a power controller and a wavelength
5 controller. The power controller adjusts a bias current to the laser diode to change the
power output of the laser diode. The power change can have a corresponding
wavelength shift effect on the nominal operating wavelength of the laser diode. The
wavelength controller compensates for the wavelength shift such that the laser diode
maintains operation at the nominal wavelength. The circuit provides for electrical
10 control of the laser output power without the need for a costly and bulky optical
attenuator. The circuit also provides wavelength control to compensate for the
relationship between laser diode operating temperature and wavelength.

2025 RELEASE UNDER E.O. 14176